

Amendments to the Claims

The following listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended): A semiconductor device comprising:
a capacitor formed above a semiconductor substrate and including
a straight cylindrical-shaped storage electrode having a cylindrical projection, an edge of the cylindrical projection being located on an uppermost part of the straight cylindrical-shaped storage electrode,
a capacitor dielectric film formed on the storage electrode, and
a plate electrode formed on the capacitor dielectric film,
the edge of the cylindrical projection being rounded and having a larger thickness than a thickness in a ~~rest~~ remaining portion of the cylindrical projection.
2. (Currently Amended): A semiconductor device according to claim 1, wherein
the straight cylindrical-shaped storage electrode has a thickness gradually thickened toward the edge of the cylindrical projection.

3. (Previously Presented): A semiconductor device according to claim 1, wherein
a side surface of the cylindrical projection is tilted and a circumferential length of the
cylindrical projection is gradually increased toward the edge of the cylindrical projection.

4. (Previously Presented): A semiconductor device according to claim 2, wherein
a side surface of the cylindrical projection is tilted and a circumferential length of the
cylindrical projection is gradually increased toward the edge of the cylindrical projection.

5-6. (Canceled)

7. (Currently Amended): A semiconductor device according to claim 1, wherein
a border portion between a side surface and a bottom surface of the straight
cylindrical-shaped storage electrode is rounded.

8. (Currently Amended): A semiconductor device according to claim 2, wherein
a border portion between a side surface and a bottom surface of the straight
cylindrical-shaped storage electrode is rounded.

9. (Currently Amended): A semiconductor device comprising:
a capacitor formed above a semiconductor substrate and including

a straight cylindrical-shaped storage electrode having a cylindrical projection, an edge of the cylindrical projection being located on an uppermost part of the straight cylindrical-shaped storage electrode,

a capacitor dielectric film formed on the storage electrode, and

a plate electrode formed on the capacitor dielectric film,

the straight cylindrical-shaped storage electrode being formed of a metal film and having a larger thickness at the edge of the cylindrical projection than a thickness in a ~~rest~~ remaining portion of the cylindrical projection.

10. (Currently Amended): A semiconductor device according to claim 9, wherein the straight cylindrical-shaped storage electrode has a thickness gradually thickened toward the edge of the cylindrical projection.

11. (Currently Amended): A semiconductor device comprising:
a capacitor formed above a semiconductor substrate and including
a straight cylindrical-shaped storage electrode having a cylindrical projection, an edge of the cylindrical projection being located on an uppermost part of the straight cylindrical-shaped storage electrode,
a capacitor dielectric film formed on the storage electrode, and
a plate electrode formed on the capacitor dielectric film,
the straight cylindrical-shaped storage electrode being formed of a metal film and the edge of the cylindrical projection being rounded.

12. (Currently Amended): A semiconductor device according to claim 11, wherein the straight cylindrical-shaped storage electrode has a thickness gradually thickened toward the edge of the cylindrical projection.

13. (Withdrawn): A method for fabricating a semiconductor device comprising the steps of:

- forming an insulation film above a semiconductor substrate;
- forming an opening in the insulation film;
- forming a storage electrode electrically connected to the semiconductor substrate and formed in the opening;
- conducting a heat treatment to round an upper end of the storage electrode;
- forming a capacitor dielectric film on the storage electrode; and
- forming a plate electrode on the capacitor dielectric film.

14. (Withdrawn): A method for fabricating a semiconductor device according to claim 13, further comprising, after the step of forming the storage electrode, the step of:

- removing the insulation film.

15. (Withdrawn): A method for fabricating a semiconductor device according to claim 13, wherein

in the step of forming the storage electrode, the storage electrode is formed with a liner film formed on at least a side surface of the opening interposed therebetween.

16. (Withdrawn): A method for fabricating a semiconductor device according to claim 14, wherein

in the step of forming the storage electrode, the storage electrode is formed with a liner film formed on at least a side surface of the opening interposed therebetween.

17. (Withdrawn): A method for fabricating a semiconductor device according to claim 15, further comprising, before the step of conducting the heat treatment, the step of:

etching the liner film by a required amount from a surface side of the insulation film.

18. (Withdrawn): A method for fabricating a semiconductor device according to claim 16, further comprising, before the step of conducting the heat treatment, the step of:

etching the liner film by a required amount from a surface side of the insulation film.

19. (Withdrawn): A method for fabricating a semiconductor device according to claim 13, wherein

in the step of forming the storage electrode, the storage electrode of a cylindrical shape formed along a side surface and a bottom surface of the opening is formed.

20. (Withdrawn): A method for fabricating a semiconductor device according to claim 14, wherein

in the step of forming the storage electrode, the storage electrode of a cylindrical shape formed along a side surface and a bottom surface of the opening is formed.